Title (en)

ANISOTROPICALLY CONDUCTING ADHESIVE AND PROCESS FOR ITS PRODUCTION

Title (de)

ANISOTROP LEITENDER KLEBER UND VERFAHREN ZUR HERSTELLUNG EINES ANISOTROP LEITENDEN KLEBERS

Title (fr)

ADHESIF CONDUCTEUR ANISOTROPE ET PROCEDE DE PRODUCTION D'UN ADHESIF CONDUCTEUR ANISOTROPE

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Application

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Abstract (en)

[origin: US5891366A] PCT No. PCT/DE95/00769 Sec. 371 Date Dec. 27, 1996 Sec. 102(e) Date Dec. 27, 1996 PCT Filed Jun. 16, 1995 PCT Pub. No. WO96/00969 PCT Pub. Date Jan. 11, 1996An anisotropically conducting adhesive includes a thermoplastic base material; and particles which include metal particles and metal ions, which are electrically conductive, and which are finely distributed within the thermoplastic base material below a percolation threshold, wherein the particles are enriched in certain regions under the influence of exposure to at least one of light and heat. A process for producing an anisotropically conducting adhesive includes providing a material comprised of thermoplastic base material in which electrically conductive particles including metal particles and metal ions are dispersed; and exposing the material to at least one of light and heat in predetermined regions in a targeted manner so that a targeted local heating occurs in the exposed regions and an increased mobility of the metal particles and metal ions occurs which is effective to provide a plurality of anisotropically electrically conductive paths having an enriched amount of the electrically conductive particles compared to that of adjacent regions, wherein the metal ions contribute to the formation of the plurality of anisotropically electrically conductive paths by undergoing reduction from the metal ion to the metal.

IPC 1-7

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